

Applicant: Kari Holopainen et al.
Application No.: 10/070,024
In response to Office action dated Sept. 15, 2004
Amendment dated Dec. 15, 2004

Remarks

Claims 14–18, 20–29, and 31–33 remain pending in the application. In the Office Action dated Sept. 15, 2004, claims 29 and 31 were rejected under 35 U.S.C. 102 over the disclosure of Beckers, and the remaining claims were rejected under 35 U.S.C. 103 over the disclosures of Hirvonen, Beckers, Ehrola et al., van Haag, or Korhonen et al. Claims 26–28 and 31 were rejected under 35 U.S.C. 112.

It is noted that the Examiner has applied U.S. Pat. No. 5,419,242 in the Office action, but has not cited this reference on a form PTO-892. It is requested that the applied reference be cited on a PTO-892 in order that it may appear among the “References Cited” on any issued patent.

Claim 31 has been amended to properly refer to the first roll stack and the second roll stack. Claim 19 has been cancelled, and claim 20 has been amended to depend on claim 14, and to correct a typographical error.

Claim 26 has been amended to clarify the structural interrelationship between the rolls of the roll stacks and the rolls specifically set out in claim 14.

Independent claims 14 and 29 have been amended to include a roll shell of continuous-fibre reinforced composite material, the fiber orientation being such that the composite material outer shell is more rigid in the circumferential direction than in the axial direction. New claim 33 is directed to an apparatus have a roll shell of fiber reinforced composite material in which the shell is more rigid in the circumferential direction than in the axial direction.

Beckers does not disclose a shoe roll of a fiber reinforced composite material, the fiber orientation being such that the composite shell is more rigid in the circumferential direction than in the axial direction. Although Ehrola does disclose such a roll, the Ehrola roll is disclosed as being most suitable for a backup roll for an extended nip press, or it could be used as an ordinary nip roll. There is no indication in Ehrola that the roll could be used in a calender. There is no suggestion in Beckers moreover, that a composite roll of this type should be used in the apparatus of Beckers. Likewise, neither Hirvonen, van Haag, or

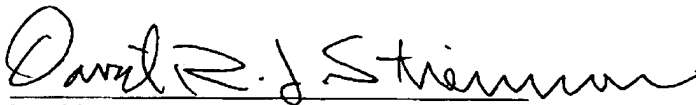
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Korhonen et al. suggest a shoe roll of the claimed composite structure. Kytönen et al. (U.S. Pat. No. 6,039,840), discloses a composite roll for use in a supercalender, but not with the claimed properties of the present claims.

Applicant believes that no new matter has been added by this amendment.

Applicant submits that the claims, as amended, are in condition for allowance.
Favorable action thereon is respectfully solicited.

Respectfully submitted,



David R. J. Stiennon, Reg. No. 33212

Attorney for Applicant

Stiennon & Stiennon

P.O. Box 1667

Madison, Wisconsin 53701-1667

(608) 250-4870

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